DEPARTMENT OF VETERANS AFFAIRS SYRACUSE VA MEDICAL CENTER 800 IRVING AVE SYRACUSE, NY 13210



ADD VFDs TO GARAGE EXHAUST PROJECT: 528A7-13-723

This project will modulate the parking garage exhaust fans to maintain proper ventilation based on gas levels detected in the underground locations. It replaces the two motors on the garage exhaust fans with premium efficiency inverter duty rated motors, and installs Variable Frequency Drives to control the new motors. Carbon Monoxide and Nitrogen Dioxide sensors will be installed at key locations, which will report to a new control system that will properly modulate the fans to ensure adequate ventilation without expending excess energy. The control system shall also provide alarm and status indications to the existing building automation system. The contractor shall supply all labor, materials, and equipment necessary for a complete and usable system and in accordance with the plans and specifications. Special considerations for completion of work should take into account notes as stated below and contained within:

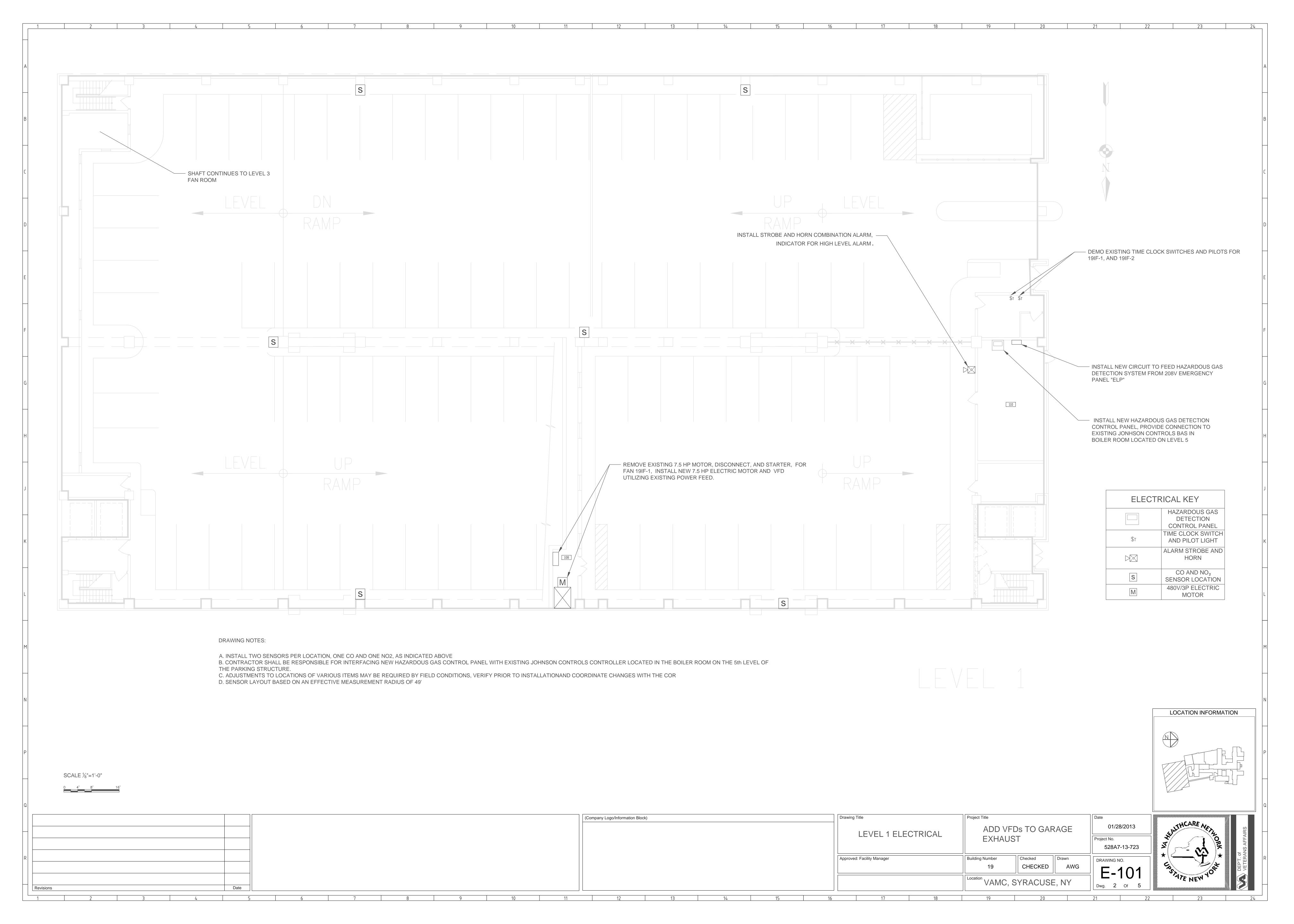
- Power for fan motors is live 24/7 and is backed by emergency generators, any shutdown of fan power must be arranged 48 hours in advance through the COF All installation work in parking garage is to be done after 5PM on weekdays, or on weekends.
- Garage exhaust shutdowns shall be coordinated with the COR and are to occur only during unoccupied periods after 5pm weekdays, or on weekends Any anchors required for mounting to parking structure decking are not to exceed $\frac{5}{8}$ " in depth into post tensioned slabs and girders
- Access to secure areas is to be coordinated with the COR.
- All locations of equipment are to to be verified by contractor, new locations are to be approved by the COR Conduit routes are omitted in drawings, contractor shall be responsible for all conductors and conduits necessary to ne

0)	b) Contractor shall furnish all equipment listed for installation within drawings, and equipment	i snaii meet me requireme
9)	Fan idle speed shall be adjusted to maintain a minimum of .05 cfm per sq. ft. of air movem	nent over fan served area.

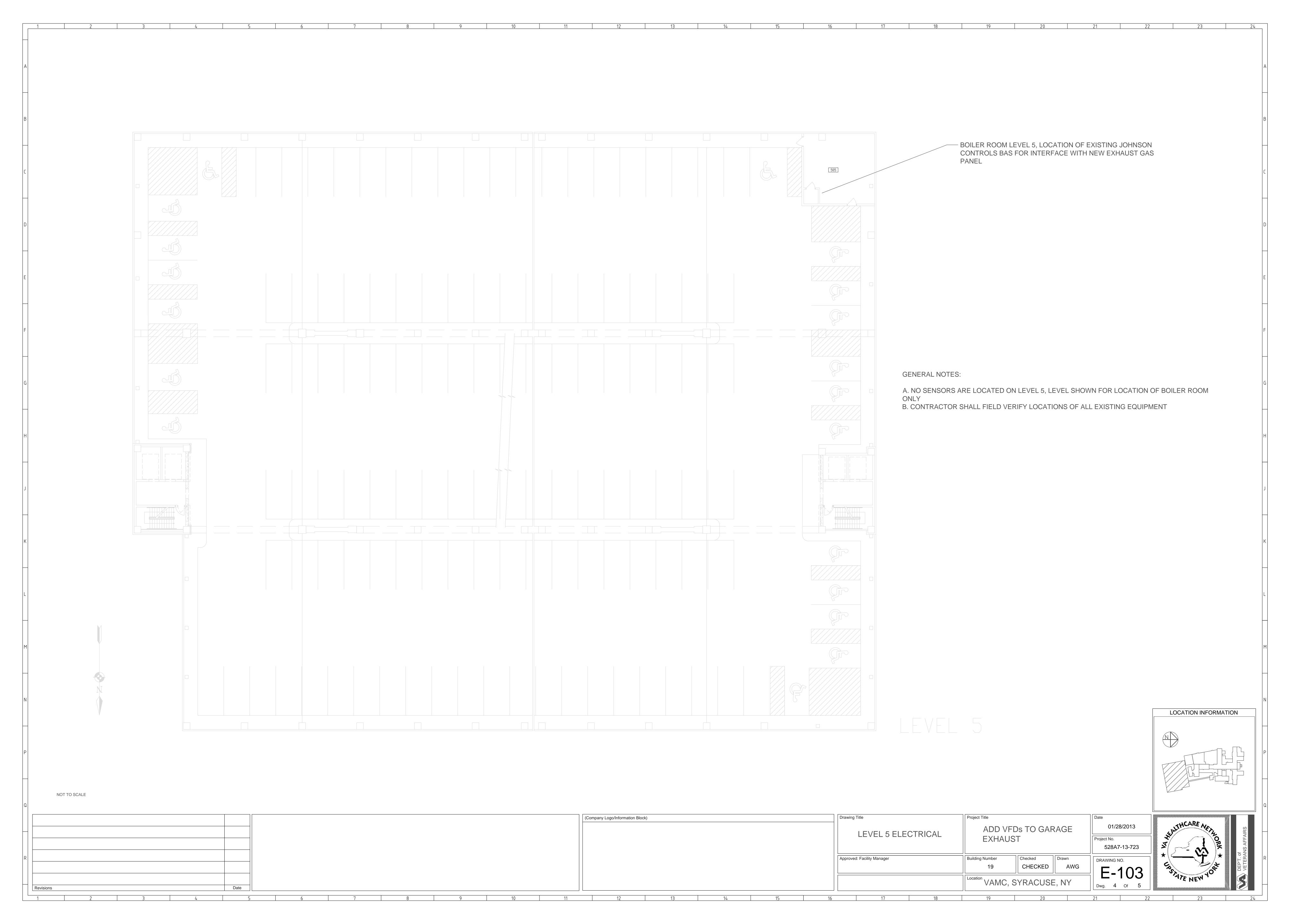
INDEX						
SHEET NUMBER	CONTENT					
G-001	COVER SHEET					
E-101	LEVEL 1 ELECTRICAL					
E-102	LEVEL 3 ELECTRICAL					
E-103	LEVEL 5 ELECTRICAL					
E-601	EQUIPMENT SCHEDULE					



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REMOVE EXISTING 10 HP MOTOR, SERVICE ——— DISCONNECT, AND STARTER, FOR FAN 19IF-2, INSTALL ONE 10 HP MOTOR AND VFD UTILIZING EXISTING POWER FEED **GENERAL NOTES:** LOCATION INFORMATION A. NO SENSORS ARE LOCATED ON LEVEL 3, LEVEL NOT TO SCALE Drawing Title Project Title (Company Logo/Information Block) 01/28/2013 ADD VFDs TO GARAGE LEVEL 3 ELECTRICAL **EXHAUST** 528A7-13-723 Approved: Facility Manager DRAWING NO. CHECKED AWG VAMC, SYRACUSE, NY Date



HAZARDOUS GAS SENSORS										
SENSOR, GAS	RANGE	RESOLUTION	TEMP. RANGE	EMP. RANGE ALARM A		ALARM C				
CO	0 to 250 ppm	1 ppm	-4 to122° F	25 ppm	175 ppm	225 ppm				
NO ₂	0 to 10 ppm	0.1 ppm	-4 to 122° F	0.72 ppm	2.0 ppm	9 ppm				

ALARM LEVEL A INDICATES THE CONCENTRATION OF MEASURED GASSES AT WHICH THE FAN SPEED SHALL BEGIN TO INCREASE, BY ALARM LEVEL B FAN SPEED SHALL BE AT ITS MAXIMUM, ALARM LEVEL C SHALL ACTIVATE HIGH LEVEL STROBE AND HORN AND SEND AN ALARM TO THE BAS (JCI)

	FAN MOTORS									
FAN NUMBER	FAN NUMBER LOCATION S.P. (in.) DRIVE TYPE				TYPE	MAXIMUM FAN RPM	PHASE	VOLTAGE		
19IF-1	IF-1 FAN ROOM 108 0.375 BELT		BELT	7.5	PREMIUM EFFICIENCY, INVERTER RATED	1910	3	480		
19IF-2	FAN ROOM 306	0.375	BELT	10	PREMIUM EFFICIENCY, INVERTER RATED	1272	3	480		

Date

(Company Logo/Information Block)

Drawing Title

EQUIPMENT SCHEDULE

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EXHAUST

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528A7-13-723

Approved: Facility Manager

Building Number
19

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Location
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